

Figure 1

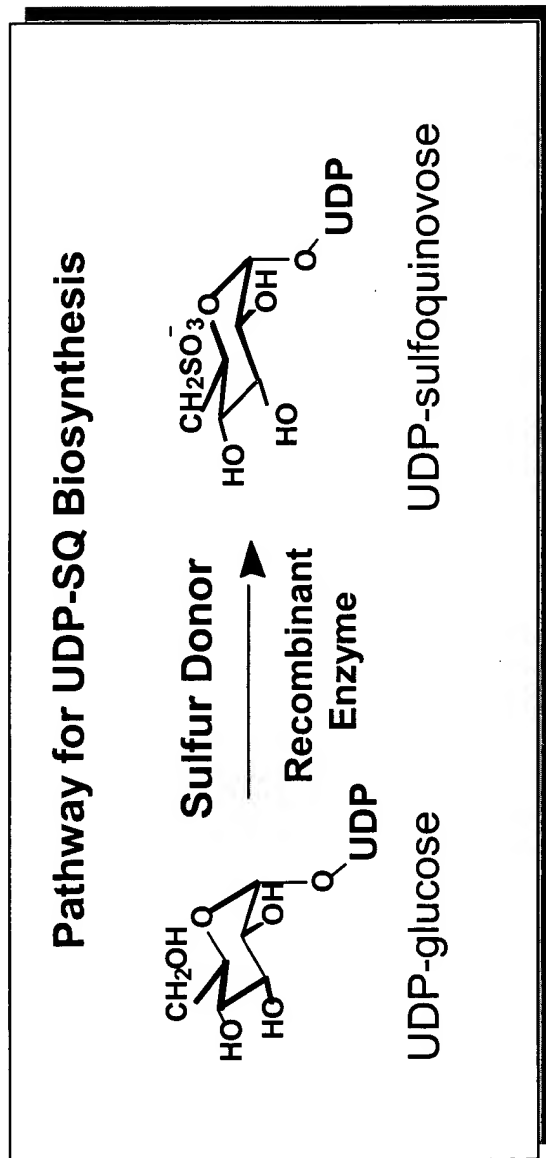


Figure 2

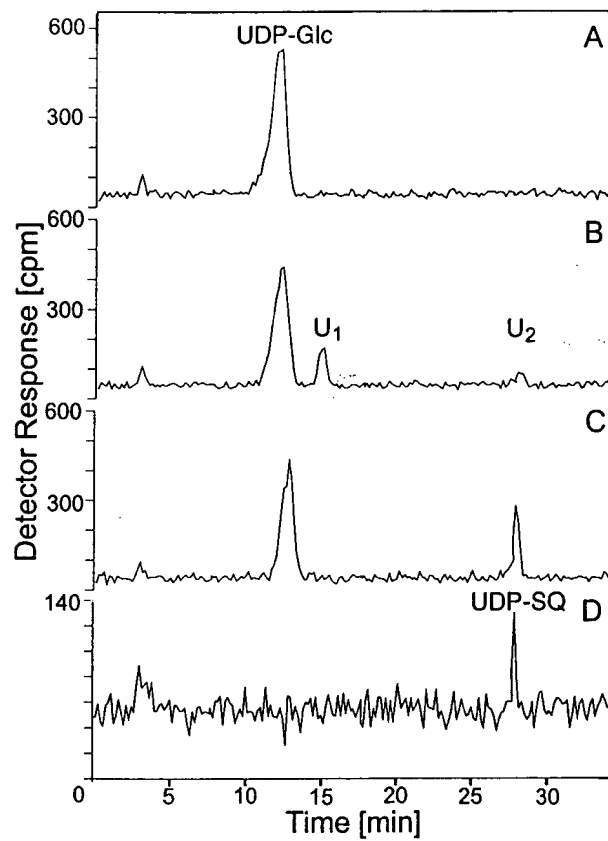
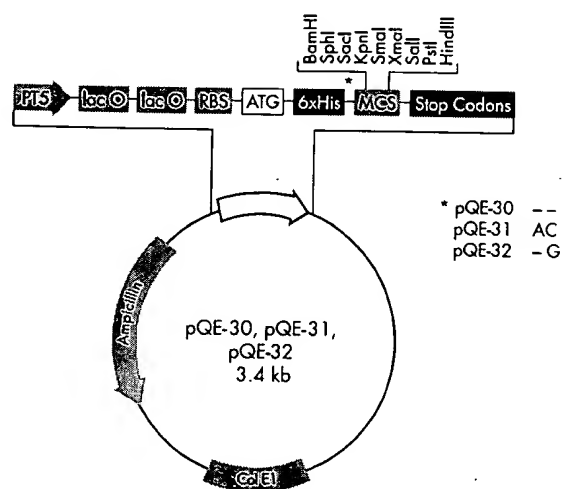


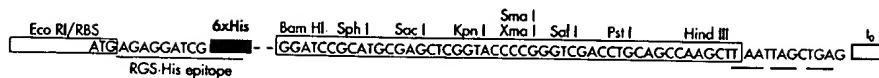
Figure 3

pQE-30, pQE-31, and pQE-32 Vectors

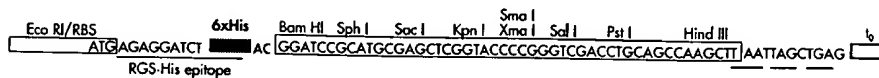
Positions of elements in bases	pQE-30	pQE-31	pQE-32
Vector size (bp)	3462	3464	3463
Start of numbering at <i>Xho</i> I (CTCGAG)	1-6	1-6	1-6
T5 promoter/lac operator element	7-87	7-87	7-87
T5 transcription start	61	61	61
6xHis-tag coding sequence	127-144	127-144	127-144
Multiple cloning site	145-192	147-194	146-193
Lambda <i>t</i> ₀ transcriptional termination region	208-302	210-304	209-303
<i>rrnB</i> T1 transcriptional termination region	1064-1162	1066-1164	1065-1163
ColE1 origin of replication	1639	1641	1640
β -lactamase coding sequence	3257-2397	3259-2399	3258-2398



pQE-30



pQE-31



pQE-32

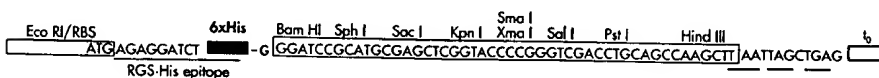
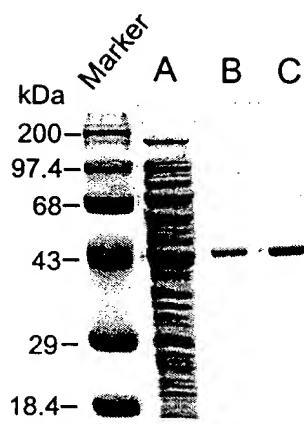
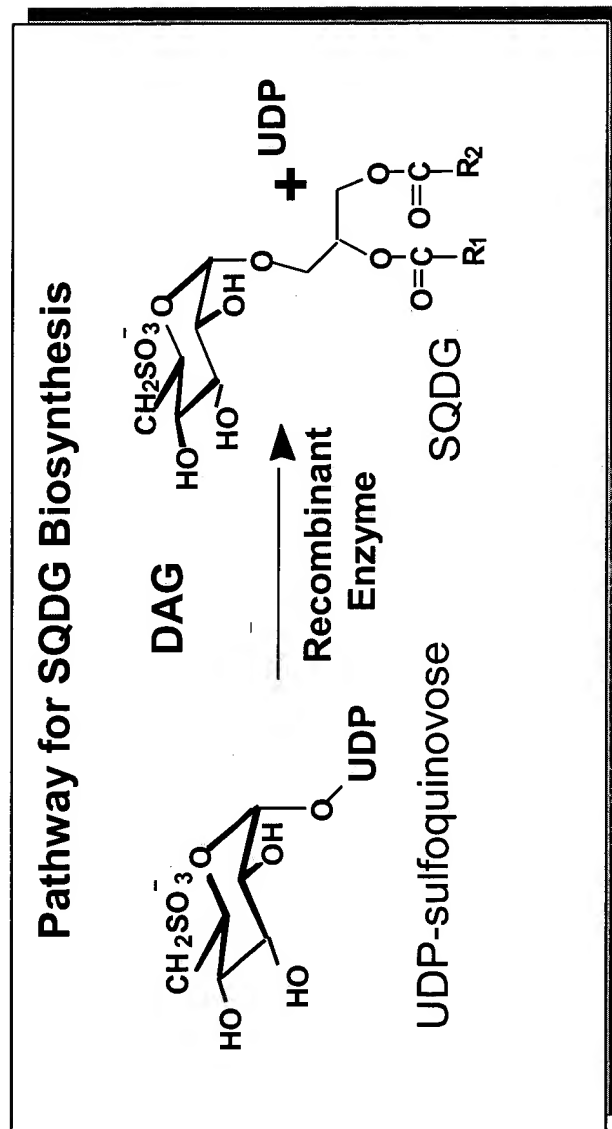


Figure 4



008077" 02050260

Figure 5



pACYC184

4,244 base pairs
GenBank Accession #: X06403

Figure 6

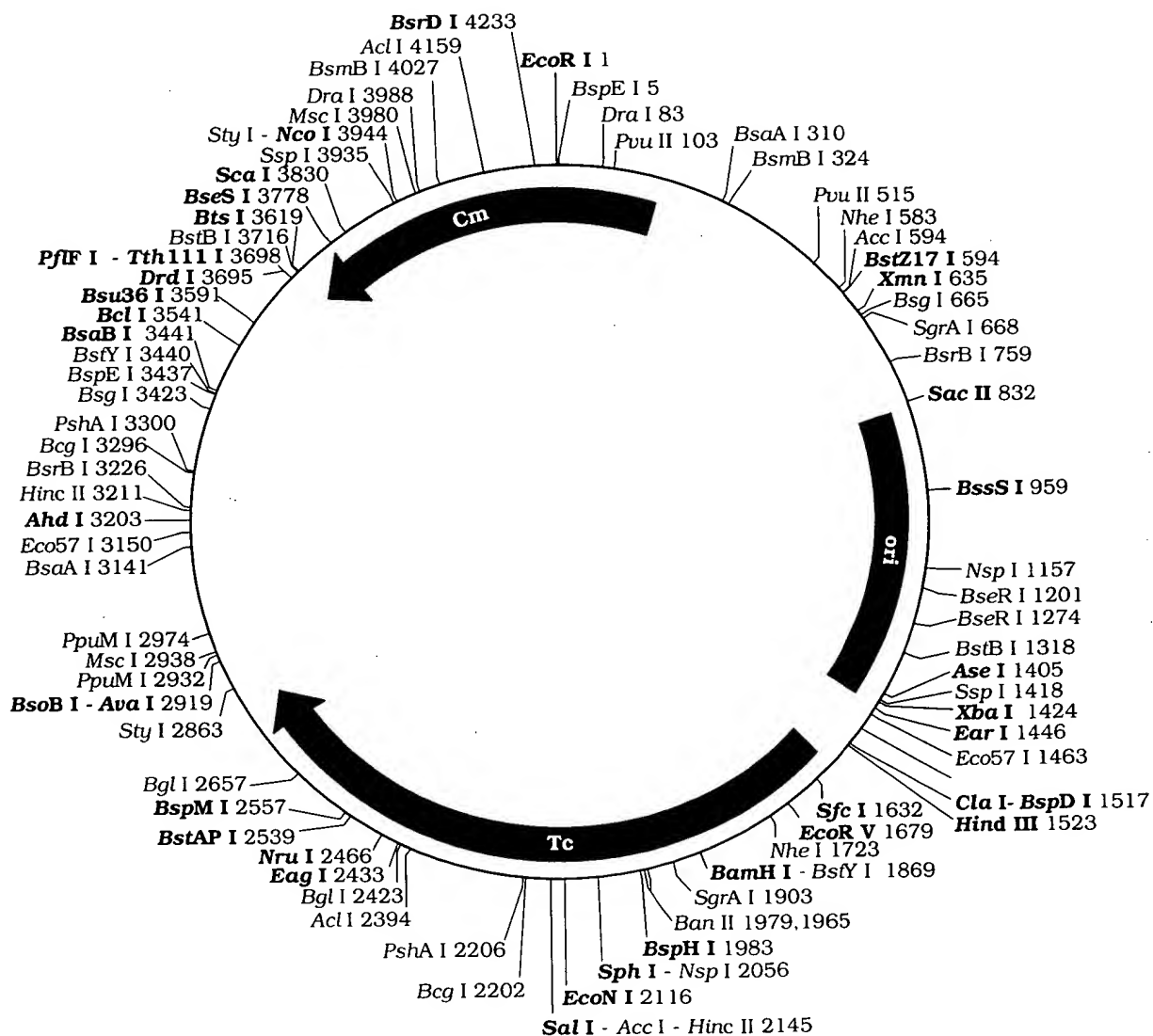
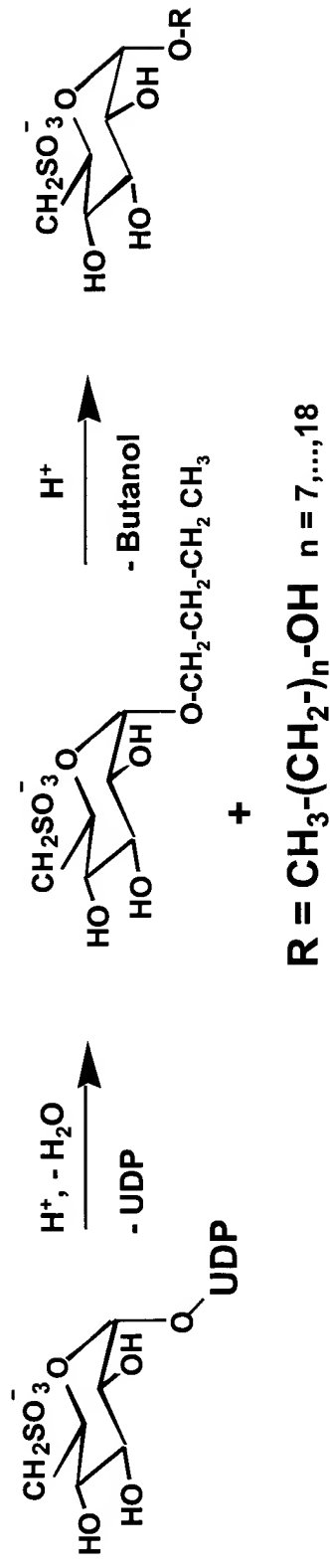


Figure 7

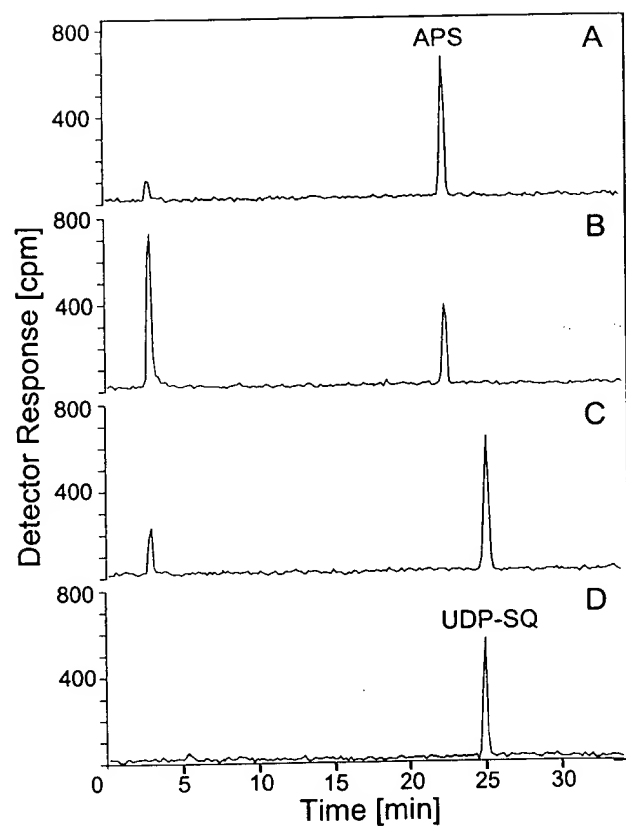


UDP-Sulfoquinovose

Butyl-Sulfoquinovoside

Alkyl-Sulfoquinovoside

Figure 8



008011 02050260

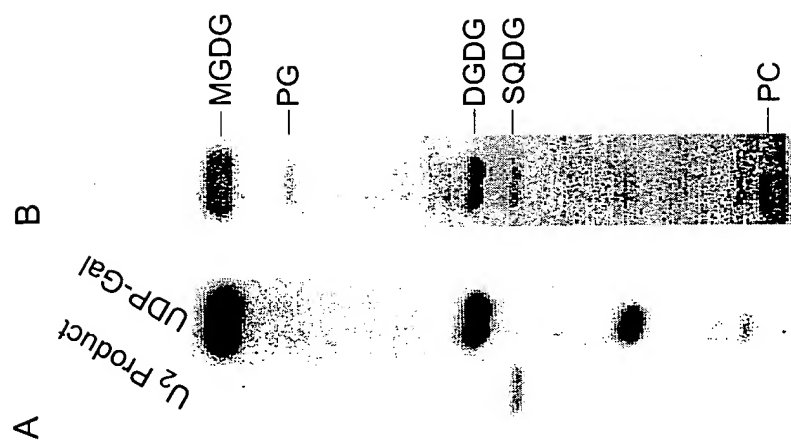


Figure 9

SECRET

1							
2-61	Tg	cgcacatcgc	tctcttttacc	gagacgttcc	tccccaaagt	ggatgggcac	gtcacgcggc
62-121		ttcggcacac	ggtcgatcac	ctgcagcgtc	ttggccacac	cgtcatgggt	ttttgccccc
122-181		acggcggggt	ccgcgagcac	aaggggggtc	gagtctatgg	ggttaaaggc	tttcgcgtac
182-241		cgtcttatcc	cgagctgaag	ctagcttttc	cgttgccgaa	agtgggaaaa	gccttgagac
242-301		ggttccggcc	cgacctgatc	cacgtgggtca	atccggctgt	gttgggggtg	ggcggcatct
302-361		actatgccaa	ggcgctaaat	gtgccactcg	tggcgctcta	tcacacccat	ttgccgaaat
362-421		accttgagca	ttacgggctg	gggggtcttg	aggggggtgt	ctgggaattg	ctgaagctgg
422-481		cgcataacca	agcagcgate	aacctctgta	cttcaaccgc	gatgggtgcag	gagctgacag
482-541		atcacggcat	tgagcactgt	tgcctctggc	agcgaggagt	ggataccgag	acctttcggc
542-601		cagacttggc	tactgctgcy	atgcgcgate	gcctcagtg	cggtaagccc	actgcgcctt
602-661		tgttgctcta	cgtcggacgc	ctctcagccg	agaagcaa	cgatcgctg	cgacccattt
662-721		tggatgccaa	tcctgaggct	tgcttggcct	tggtcggcga	tggcccgc	cgggcccgaac
722-781		tagagcaatt	gtttgctggc	accagacgc	agttcattgg	ctatctgcat	ggggaacagc
782-841		taggggcggc	ctacgcttct	gctgacgctt	ttgtctttcc	ctcccggacc	gaaaccctcg
842-901		gtctagtctt	gctggaagcc	atggcagcgg	gttgtccggt	cgtggcggcc	aattccggtg
902-961		gcattcccga	tattgtcagc	gacggcata	atggtttctt	gttcgatcct	gaggatgaac
962-1021		aaggggcgat	cgctgcgatt	cagcgcttgt	tggctaacc	tgcagagcgc	gagattctac
1022-1081		gccaaagcggc	tcgtcaagaa	gccgaacgct	ggagctggaa	cgcagccacg	cgccaactcc
1082-1134		aggactacta	ctgcgagggtg	ttggcagatg	gttgcttacc	cttagcggcc	tca

Figure 11

AtSQDX-1

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58-117	caaaacatga	actttctttt	tcctccagaa	ccaaatcgct	gcactgtact	gttcattgag
118-177	tatctttgtc	gttgctgctc	tccaatcata	tttctcggtc	tcttctcttg	ccgcttttcc
178-237	aatgatctct	cttgtttcac	ggtcgtgcag	taaagttctc	agttttgtca	cgcaatcttc
238-297	aacatctcca	gggttgaaca	aaaatccggt	ttttccctcc	tgatgaaaac	atcagaatca
298-357	gaaaaccaca	agctcaatat	aggttgaccc	ataagaacaa	tcaatgcaag	atcattttgt
358-417	gtaccagtct	atgattgaat	aaagtttcag	ttcgggttaca	gctcgtttat	aagaaaattg
418-477	gcagaaattg	ttttttcaac	catttcgggt	cggttgatata	gctcatcaat	atgggtttggc
478-537	agttaattgt	aattcagata	attcactgac	ctgatcttca	gggattatat	cagggattcc
538-597	accggcacgg	gccgcgacga	caggaagtcc	tgaagacatt	gcttcaagaa	ccacaaggcc
598-657	aagtgtctcc	gactctgatg	gcatacacia	cacatctcca	cttgcgtaag	cttgtgagag
658-717	ttcatcgctt	tgtaacggtc	cagtgaiaac	cgctggcatt	ccggtaaaaa	acttctcaag
718-777	atcctctctt	taagaaaacg	aaacagataa	acaaaattac	aatgttggtg	actagaaatc
778-837	ttcagataac	aatatggcca	atctttaaca	aaactagtac	ttgtatggtc	catctccaat
838-897	gaaagcaatc	cgagcttcag	gtaatttgct	cattacactg	cacacaaatt	tctcaatatc
898-957	aaaattcgat	acaccactta	aaagaagtga	gtccagttta	tacaaaattc	taacctcttt
958-1017	aaaagctcca	aactcttttc	tacgccaatg	cgacctacat	gaatcactag	tggcttttct
1018-1077	ggttcgccat	tactgttaat	tacaaaatat	taaacatcaa	gattagcgtg	gaaagtatca
1078-1137	ttgttttttaa	tgcataataa	agaaacgtat	attctattct	tgcttcagtc	ttatacgcac
1138-1197	ttcttgagaa	cggaacggg	gattgaagct	ttctgaatcg	acaccttat	tccaaagtcg
1198-1257	aagttgatta	gcttcaatat	atgaaaaaaa	gaagaagaaa	atgtaagttt	tgaacaatca
1258-1317	tagagcttgt	acaaaaatgt	aatgtatgat	ctttcttcac	ctgcagttgc	accagctgct
1318-1377	ataagatctt	ttccaatggc	agcagaagga	actaatgtaa	gatcagccgc	tctgtgaagg
1378-1437	aaccctgata	aaagcatatt	caagtttagt	ttcatattat	acatacacaat	aaaccagaaa
1438-1497	aagaagaagg	aaattttgac	atttgaaaag	cgggttttac	atacttatta	tagaccacac
1498-1557	tggtttttacc	aaccaactaa	aagtgtatct	tgggatgtat	ctgcacatca	acacaagctt
1558-1617	aatcttagac	aaaaattttt	ttataacaac	attgtgaaat	gaggcagaaa	aaggtagtta
1618-1677	cacagggacg	tgtgtgtggt	aagacattac	tattggtaca	gatagcattt	ttgctattgc
1678-1737	cagagcacca	aagacctaaa	aatttttagtc	agggaaaaaa	gagagtcaag	ttctggattc
1738-1797	tctccagttc	actggtcttg	ctaagtgttt	agtaatgtga	attcttgagg	gatttaccat
1798-1857	aactccggga	gatgaagcgt	gtataatgtc	aggcttaaac	cgtgcaattt	cagagatgat
1858-1917	tcttggaacta	agcgcaagcg	agagtggaaac	cttttggtaa	taaggacaag	ggaagctaca
1918-1977	gaagagaaga	agaaattagc	gatattacca	aatagagaac	atccagtga	taaactaaat
1978-2037	ggtgctacct	tcttgatcca	atgactctgg	ctccataaaa	ctcttcagga	acaccttcac
2038-2097	gtgtcgtcac	gactataacc	tatgaagcaa	aaaagttatt	aaaaaaaaaa	aaaaaggaac
2098-2157	agttaacact	tgtcaagtaa	ttctaattct	ggaaacagtt	acttatgagc	tgactgaaaa
2158-2217	gatacttaag	ttgaagaatg	agatagtaaa	agaagaaacc	togtctccca	tttcacggag
2218-2277	gtatctaattg	aaattctgga	atctgttttt	gtagccggat	acatagctgc	aacaaaaatca
2278-2337	aagagagaat	cacttccaat	aataacatga	catataataa	aagcttttgg	tcaatggatc
2338-2397	ggtgattccg	agaatcttgg	gatattcaca	actaaaatct	gacaactttg	actcaaacaa
2398-2457	atcctgaatg	taattgggtt	taacgatcta	ctatataatt	tgctaaattg	gtgggtgtagc
2458-2517	aaattcatac	attagcgagt	atctcttcat	aaaataaatg	taacgatcaa	atcgaaagaa
2518-2577	aaaaacatta	caggaaaaag	tcaaccaagg	aaaaaaatga	gtagaatctg	ttttcacaga
2578-2637	gacatttcgt	cgaacacaaa	acaagcaaaa	aaagaacact	gtgaagaaga	cttacgcaaa
2638-2697	gggagaaggc	tcaacaaaga	gagcaattct	cctaggctta	gagagcgact	caggatcgag
2698-2757	aagcggcgca	tcaatctccg	attcgtcatc	ttctctgact	tgagtaatag	tcatatcggt
2758-2817	ggaccagaaa	acagcttcc	ttgtaatcac	tccacagaag	cggagcttgc	ttttcttgct
2818-2877	aatgggtaat	ctccggtgac	caaacgaaag	aggggaatga	agaacaaaag	aagaagacct
2878-2937	gggaggagaa	caagaggttg	cagaggaaga	agaacaagtg	ttagtcgtgc	taggaagcaa
2938-2979	atgaggaggt	atagagagat	ttatagaaga	aagagtcgtc	at	

003011-02050260

Figure 12

AtSQDX-2

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51-110	tcttcttccc	atcaaaaagt	gctagtggca	agaccgcgca	tattccagta	acaaagttha
111-170	aattcaaaac	tatggaacac	aatttgtccc	atgttttggt	gcctgaatta	aacgaccata
171-230	tcaacttggt	cggccacttc	atctcggata	cgcacaagcg	gttgtcaagg	ttgtaaaaga
231-290	cgattttgta	aggatctaca	ttggcaaagg	gagctttaca	gacgacttga	aaagtttcgg
291-350	tgtgaagatt	gaaaggtaaa	acttttggtt	ctttgcactc	ggtgaaccaa	taaagcgacc
351-410	catctagata	cacagggtgcg	gggtaagcag	caatccgata	aggagcagcg	agagtgcacat
411-470	acctccaagc	attggtacta	aagtcgaaaa	cttcgcatgt	agtagcgttt	tttaggccta
471-530	tttctgcaga	gttgtataac	caaacgggct	tgtatgtgcc	cctgaatttg	tctttaccga
531-590	atccaagcat	aaagaatttg	cgtttaagct	tgtagtaacc	atctcgtaag	tcgatcatga
591-650	gtttttgata	atcgcaaaga	ggaagaggcc	gataccatct	agtggtcggg	ttgaccacat
651-710	aaccggattt	gtcgtgattg	taaagacaaa	cgagaccgtc	acaactacta	tgtgaaacta
711-770	agtacagtac	gttatccttc	tcccaaggag	tagggatctt	gaacgttgat	gatgaaccca
771-830	actgcaatgt	tcttaaagat	tctatggtcg	ggtttataac	atggtgagga	aatacagaca
831-890	ccatcagaac	atctggatct	cctgattgct	gacgatgttt	caactaaaat	tgtatacatt
891-950	tttattttat	taaaaagata	aatatcattt	tgttggaatt	ggaaaacaaa	atctaaaaga
951-1010	taactttaga	tatgtaaggg	tcgcatatgt	atttgattac	attgctatga	gtatatgact
1011-1070	cacttttcca	ataatgaaaa	aaataaagat	gttgagtctt	actaattaag	ggtaaataca
1071-1130	aaattttctga	tcattaatac	aaagaaaaag	cctctcataa	gccaaagcca	tttactcgc
1131-1190	cgtaaacatc	tccgcagcat	actctttaca	cttcttctct	ctctccgcca	atctctccgc
1191-1250	tccttcagcc	acagcaacct	ccataaccgc	cgtcaaagct	tccacatttg	gcgcaaacat
1251-1310	aaacccaaac	tcatcattca	ccactatagt	cctctttatg	cttgcgtaac	tagatgccat
1311-1370	cactgggttta	ccactcaaca	tcgcttccat	taacgttaaa	tcaagacctt	gtgggtctaag
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1431-1490	agatcccaaa	atggaaactt	tttcccctaa	ttccttgtaa	cgttgctccc	atggccctga
1491-1550	tccagctact	acgaggtaaa	catttgaata	cgtttggtatt	attttcgcga	aagcttcgaa
1551-1610	gagcaatgga	tgtcctttgt	ctttgactaa	tctcccagca	gctcctaaaa	caatcgctga
1611-1670	tgagtthtct	ggtaacccta	atthtgacct	aaacagagta	cgtagcttct	tgtctgatgt
1671-1730	gaatccgttc	tcgtcgactc	cattgaggat	cacatgaacc	cttttctcag	ggatttggtg
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1851-1910	gccttgatgat	cttggttcgt	ctggtttacg	gatcaggtct	tggtaaatac	ttgattgtaa
1911-1970	gctctctaac	gcaatgccgt	gccaggatac	agcgaggttt	ggaacctccc	ggcgatcca
1971-2030	gtgaggtaaa	gcaacacttt	cagagtgaac	cgcacgaaa	ggttctttct	tgthtcttct
2031-2090	ttggtaaaagc	tcccatgcct	tgttgtagccg	ccattttccg	ggctccgcgt	cgccgtgaga
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2151-2210	ttggtctaag	ggagaggtga	aaacgtggac	acggtgtcca	cggcgagcta	aggcgggtga
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2271-2330	gaaaacagcg	agthtttagtg	ttthggggag	agggttggtt	aaggagaaat	caaggcgggt
2331-2390	ccaggcaaatt	tgggcgggtt	ggaggtcgcc	agaccacggt	ggctgggttg	tgtcagagga
2391-2450	ggaggaggag	actgcagcgg	tggaggagga	gcaagtggag	gtgcggagga	gaaagagagc
2451-2510	cggtatggta	aagaggacgg	tgaagaagag	gaaagtacaa	aggctaaaat	gagaattagg
2511-2537	tttcttgagt	ttggtttggt	aagccat			

Figure 13

AtSQDX-3

1-7						ttaaggt
8-67	ctcatgcatt	tgaccagaac	atcgacgaat	cgcttgtaca	tatgttgctt	catgtacatt
68-127	ttctcaacca	ttttgcgtcc	ttcactcccc	aatcgtagcc	tctcgtctgg	attcctaagt
128-187	agatacaaga	gattatgagc	taattctttg	ttaccggatc	tccccattga	gtgaagtaga
188-247	ccagtcattgt	tgtgttgaa	catctctttg	gttctctctg	catctgttcc	caccactgca
248-307	agtccataag	ccattgcttc	gattgtcact	ctaccaaata	tttcaccaac	tccctgtaaa
308-367	aaatcaaggt	tcaaaaataa	taaaccgaac	aaaatcgaaa	tggtcaaacc	gaaatcaaaa
368-427	cctacattttt	gaacaaaaac	aaaactgaaa	tggttttatcc	aaaaccaaac	tgaaatcaat
428-487	cacaaattgg	tttatttgat	tcagtaattc	aagttcctat	aaaactgata	aaactaaacc
488-547	aaaacctaac	tgtaaaactac	tttctagtgg	aaaactgcat	atgcatcaaa	taatgttttt
548-607	gaggtgtgag	gaggattacc	tgggagtttg	taacgtagac	atctgctgca	gagtataatg
608-667	aagcaacacg	ggttgttgca	ggagtccaca	ttaccgactt	agataagttt	ccgctgtttg
668-727	acaagaagct	taacatctct	ttaacgtatc	caactttgtt	gctctttgaa	cccacggatc
728-787	ctaaaagaac	tttaagttct	tgcttctctc	ttcttaagcc	attgtcaagt	gtgagagaaa
788-847	cacttttcat	ctgtcgtgat	gaacctctta	aacgatgttt	gctggagaga	ctaacctttt
848-907	ctttcctaata	gatccccttg	tgattccttt	gagattcctg	tcctctctca	gaaagagcca
908-967	aggcaataga	ttcaaggaga	agaagttgtc	cctttgttgg	gtttatgctg	ctaagagaca
968-1027	tcacaagcat	atctgaatct	gttattccta	actctgttct	cactgattcg	cgtaatatatt
1028-1087	gtctcttcac	cctcattttc	tctggtgaaa	gtgttggtgt	gttgagtga	gaaggaatcc
1088-1147	ccgctacaaa	agctaactca	tcattaacag	atagtggaa	aatcactggg	tgtgatctaa
1148-1207	gcttttatatg	ctcctcctcg	caccatgtta	accattgtct	gctctgtgat	tcagataaga
1208-1267	aaatcagcat	tttactcgg	tcaagaactg	gtttcgctcg	atcaaagtat	tctcgtcgat
1268-1327	tctccattat	ccaccaagct	atttgacttc	caccagctgg	atgatgatcc	atgtattgat
1328-1387	ctgcgagaaa	aggaaaaaaa	aaaagtaatt	aagatatgct	ttcctctgat	tgtaaattag
1388-1447	tagtctaaaa	actgcataat	gaattcttac	ctatccatga	ggtacacact	gctgatcctg
1448-1507	cgatgatcaa	atctgctttc	atggcagtct	tgaagctgag	ttctcctttg	tcttcaacaa
1508-1567	ctttgatcct	tctcctactg	agctcttgca	tcaatccacc	tctcctgcta	agaactactg
1568-1627	cagagactgt	tgcaccacag	ctcaaaaagc	ctgaagccag	ctccatcata	gaaattggag
1628-1687	caccagtcatt	tgatagctcg	tggaaaagca	ggacgaatct	ccttgaccaa	acaaggcgtt
1688-1747	taaaatctga	tttctgtctg	caagtcaccg	atcttctatg	cgggctccat	tcaagaactt
1748-1807	tatcctctag	tgatccaaag	ggaccaagaa	gcttaccata	agtagcattt	gtcaatggaa
1808-1867	gttgtggatc	ttgctcatca	tccaaatcct	tagtctcaag	tacctcttta	atcaccttct
1868-1927	gcttaacacg	gatcttacta	cgagaagtcc	ggacagtttt	tctcgtcttc	tgcttggaac
1928-1987	tcaagctccg	tcgagaaacc	ccatcatctt	tcttgatcag	actaacatcc	gtcctcttat
1988-2047	tcgaaccagc	atcatcttta	ccagtaatat	taaccaaagc	ctcagaattc	tcattagcaa
2048-2107	caacatccag	tcctttaatc	ttctccatat	ataactcatc	ctttctcggt	ctgcctccaa
2108-2167	accgtaaaaa	ctcaactttg	ctttcattat	catgtgccca	cctagactga	acataaaaatc
2168-2227	caagatacgt	ccaaagcgta	atcaaaaagc	gccataaaac	caaccggcta	ctacgaaacc
2228-2287	actgaaacgc	tcctcctcca	ccatgacctc	tacgcggagt	cctaccagaa	tacactctag
2288-2347	gtgtaccctt	tggagtagac	ctccctgaca	gtgaagactt	aacacttgct	tgtctcagcg
2348-2369	gcgataaccg	aatctcctcc	at			

Figure 14

SQD1

09709020.110300

```
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121 aattttcaaa  ggtgaatttg  tttgatagaa  tcaagaacaa  acctttaaaa  tggcgcatct
181 actttcagct  tcatgccctt  cagttatctc  acttagcagc  agcagcagca  agaattcagt
241 taagccgttt  gtttcagggc  agaccttctt  caatgctcag  cttctttcaa  gatcttctct
301 caaaggactt  ctcttccaag  agaagaaacc  gagaaaaagc  tgcgttttca  gagcaactgc
361 tgtacctata  acccaacaag  caccacccga  aacatctacc  aataactcat  cctctaaacc
421 aaagcgtgtt  atggtcattg  gtggagatgg  ttattgcggt  tgggctactg  ctctccactt
481 gtccaagaag  aattacgaag  tttgcattgt  tgacaacctt  gtaagacgtc  ttttcgacca
541 ccagcttgga  cttgagtcac  tgactcctat  tgcctccatt  catgaccgaa  tcagccgatg
601 gaaggctttg  acagggaaat  caattgagtt  gtacgttggt  gatatctgtg  atttcgaatt
661 cttagctgag  tctttcaagt  cttttgagcc  ggattcagtt  gtccactttg  gggaaacagag
721 atccgctcct  tactcgatga  ttgaccggtc  cagagcagtt  tatacacagc  acaacaatgt
781 gattgggact  ctcaacgttc  tctttgctat  aaaagagttt  ggagaggagt  gtcattctgt
841 aaaacttggg  acgatgggtg  agtatggaac  tccaaatatt  gacatcgagg  aaggttatat
901 aaccataacc  cacaacggta  gaactgacac  tttgccatac  cccaagcaag  ctagctcctt
961 ttatcatctt  agcaaagttc  atgattcgca  caacattgct  tttacttgca  aggcttgggg
1021 tattagagcc  actgatctca  accaaggagt  tgtttatgga  gtgaagactg  atgagacaga
1081 gatgcatgag  gaactccgta  accgactgga  ttacgatgct  gtgtttggta  cagcacttaa
1141 ccggttctgt  gtgcaagctg  ctgttggtca  cccacttaca  gtttatggta  aagggtggtca
1201 gacgagaggc  tacctcgata  taagagacac  ggttcaatgt  gttgagatcg  ctatagcaaa
1261 cccggcaaaa  gctggtgagt  tccgggtctt  caaccaattt  acagaacagt  tttcagtcaa
1321 tgaactggct  tcaactcgta  ctaaagcggg  ttcaaagctt  gggctagacg  tgaaaaagat
1381 gacgggtgcct  aacccgagag  tggaggcaga  agaacattac  tacaacgcaa  agcacactaa
1441 gctgatggaa  cttggacttg  agcctcacta  tctatctgac  tcaacttcttg  attcgttgct
1501 caactttgct  gttcagttta  aagatcgtgt  ggacacgaaa  caaatcatgc  ctagtgtttc
1561 ctggaagaag  attggcgtca  agactaagtc  catgaccaca  taaagtgcag  accaatatta
1621 cacataagga  gagattatga  aagagatgat  gtgttgtttg  gtatcttcaa  acttcatttc
1681 tgcaaaaagac  ttgctaggct  taagaggttt  tgtccatatt  acatttgtga  ggttctttaa
1741 tgtagatct  taatttcgat  gaaaaaaaaa  aaaaaaaaaa  aaaaaaaaaa  ggcggccgc
```

Figure 15

SQDB

1-25					gagaa	gattcttgta	ttgggtggcg
26-85	atgggtttctg	cggttgccc	tgcgtctctca	atttggtgc	tgcaggtcac	gccgtcacca	
86-145	ttgttgacaa	cctcgttcgc	cgcaagacag	acgtggaatt	gggggttcag	tcctcactc	
146-205	cgatcgcgac	gattgaacgc	cggttgaagg	catggcaaga	aacgggcggg	cagccgatta	
206-265	gctttgtcaa	tctcgactta	gcggctgatt	acgatcgct	ctgtgcacta	ctgctagaaa	
266-325	cgcagccgga	tgcgatcgtg	cattttgccg	aacagcgcgc	cgccccctat	tcaatgaaga	
326-385	gtgcatggca	taagcgcttc	acgggtcaata	acaacgtcaa	cgccaccac	aatctgctct	
386-445	gcgcctgtgt	ggatgtcggc	ctcaagtcct	acattgtcca	cttgggcacc	atgggcgtct	
446-505	atggatacgg	tagccatcgc	ggggctacga	ttcctgaagg	ctacttagaa	gtggaagtgc	
506-565	tccagcggga	tggccaacgc	tttgaagaga	agattcttca	cccgttgat	ccgggtagcg	
566-625	tctatcacat	gaccaagacg	ctggatcaat	tgttgttcta	ctactacaac	aagaacgaca	
626-685	acatccaagt	caccgacctt	caccagggtg	ttgtctgggg	cacgaacacc	gatcactgta	
686-745	atctccaccc	ggatctgacc	aatcggttcg	actacgacgg	tgattacggc	acagtcttga	
746-805	accgcttctt	gatgcaggcg	gcgatcggct	atcccttgac	tgtgcatggc	gttgggtggcc	
806-865	aaacccgagc	cttcatccac	attcgcgact	cagtgcgctg	cgccaactg	gcgatcgaaa	
866-925	atccgccagc	agccaatgaa	aaagtccgca	tctttaacca	gatgacggaa	acctaccaag	
926-985	tcaaggattt	ggcagagaaa	gtggcggcat	tgaccgggtgc	tgaaatcgcc	tacctgccca	
986-1045	atccacgcaa	ggaagccctt	gagaacgact	tgattgtcga	caaccgctgc	ttgattgatt	
1046-1105	taggcctcaa	tccgaccacc	ttggacaatg	gcctgatgag	cgaagtggta	gaaattgcgc	
1106-1165	agaagtttgc	cgatcgtctg	gatcgcgcca	aaattccctg	cgtttctgcc	tggacccgta	
1166-1209	atcaagctga	agctctcagc	gctcctgaaa	ccgctctgcg	ctaa		

Figure 16

MAHLLSASCPSVISLSSSSSKNSVKPFVSGQTFNAQLLSRSSLKGLLFQEKKPRKSC
VFRATAVPITQQAPPETSTNNSSSKPKRVMVIGGDGYCGWATALHLSKKNYEVCIVDN
LVRRLFDHQLGLES LTPIASIHDRISRWKALTGKSIELYVGDICDFEFLAESFKSFEP
DSVVFHGEQRSAPYSMIDRSRAVYTQHNNVIGTLNVLFAIKEFGEECHLVKLGTMG EY
GTPNIDIEEGYITITHNGRTDTLPYPKQASSFYHLSKVHDSHNIAFTCKAWGIRATDL
NQGVVYGVKTD ETEMHEELRNRLDYDAVFGTALNRF CVQA AVGHPLTVYGKGGQTRGY
LDIRDTVQCVEIAIANPAKAGEFRVFNQFTEQFSVNELASLVTKAGSKLGLDVKKMTV
PNPRVEAEEHYNAKHTKLMELGLEPHYLSDSLDSLLNFAVQFKDRVDTKQIMPSVS
WKKIGVKT KSM TT

003077 02060260

Figure 17

MRIALFTETFLPKVDGIVTRLRHTVDHLQRLGHTVMVFCPDGGLREHKGARVYGVKGF
PLPLYPELKLAFFLPKVGKALERFRPDLIHVVNPAVLGLGGIYYAKALNVPLVASYHT
HLPKYLEHYGLGVLEGVLWELLKLAHNQAAINLCTSTAMVQELTDHGIEHCCLWQRGV
DTETFRPDLATAAMRDRLSGGKPTAPLLLYVGRLSAEKQIDRLRPILDANPEACLALV
GDGPHRAELEQLFAGTQTQFIGYLHGEQLGAAYASADAFVFPSTETLGLVLLLEAMAA
GCPVVAANS GGIPDIVSDGINGFLFDPEDQGAIAAIQRL LANPAEREILRQAARQEA
ERWSWNAATRQLQDY YCEVLADGCLPLAA

008077" 02050250

Figure 18

MKILVLGGDGFCGWPCALNLAAAGHAVTIVDNLVRRKTDVELGVQSLTPIATIERRLK
AWQETGGQPISFVNLDLAADYDRLCALLLETQPDAlVHFAEQRAAPYSMKSAWHKRFT
VNNNVNATHNLLCACVDVGLKSHIVHLGTMGVYGYGSHRGATIPEGYLEVEVVQRDGO
RFEEKILHPVDPGSVYHMTKTLDQLLFYYYNKNDNIQVTDLHQGIVWGTNTDHCNLHP
DLTNRFDYDGDYGTVLNRFLMQAAIGYPLTVHGVGGQTRAFIHIRDSVRCVQLAIENP
PAANEKVRIFNQMTETYQVKDLAEKVAALTGAELAYLPNPRKEALENDLIVDNRLID
LGLNPTTLDNGLMSEVVEIAQKFADRCRAKIPCVSAWTRNQAEALSAPETALR

0080TT-02060260